

(PCT Article 36 and Rule 70)

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2005/001755

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-29 as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 2, 3, 5, 6, 8-10, 12-14, 16, 17 as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* 1, 4, 7, 11, 15, 18 received by this Authority on 02.12.2005
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- sheets fig. 1-10 as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>1-18</u>	YES
		Claims _____	NO
	Inventive step (IS)	Claims _____	YES
		Claims <u>1-18</u>	NO
	Industrial applicability (IA)	Claims <u>1-18</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
	<p>Document 1: JP 09-167447 A (Sony Corp.), 24 June 1997, paragraphs [0008], [0040] to [0048], [0103] and [0104], fig. 2 and 3</p> <p>Document 2: JP 11-250583 A (Sony Corp.), 17 September 1999, paragraphs [0136] to [0153] and [0176], fig. 11 to 13</p> <p>Document 3: JP 2001-184652 A (Ricoh Co., Ltd.), 06 July 2001, paragraph [0065]</p> <p>Document 4: JP 2001-266547 A (Sanyo Electric Co., Ltd.), 28 September 2001, paragraphs [0017], [0018] and [0024], fig. 2, 3 and 6</p> <p>Document 5: JP 10-143406 A (Hitachi, Ltd.), 29 May 1998, paragraphs [0012] to [0026], fig. 1 to 11</p> <p>Document 6: JP 2000-123494 A (Kenwood Corp.), 28 April 2000, paragraphs [0022] to [0031], fig. 1 and 2</p> <p>The inventions set forth in claims 1 to 4, 6, 9, 11 to 13 and 15 to 18 do not involve an inventive step in the light of document 1 and document 2. Document 1 discloses a technique for recording a volume space bitmap and a fault detection byte that expresses whether said volume space bitmap is normal or abnormal; discloses a</p>		

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technique whereby more of the bits in the aforementioned fault detection byte are allocated in cases when a variety of consistency verification processes are carried out in addition to the process for determining whether or not there is an abnormality; discloses a technique whereby a recovery program is executed in cases when the aforementioned fault detection byte indicates that there is an abnormality; and also discloses a technique whereby the aforementioned fault detection byte is set so as to indicate that there is an abnormality prior to the data writing process, and is set so as to indicate that all is normal after the completion of the data writing process. Furthermore, document 1 also indicates that a "variety of consistency verification processes, [including]...a process for verifying the consistency of the file management information...are carried out in addition to the process for determining whether or not there is an abnormality" (paragraph [0103]), and thus document 1 can be said to suggest increasing the range of items that are subjected to a consistency verification process. Meanwhile, document 1 and document 2 belong to the same technical field (i.e., both documents disclose inventions associated with disk devices) and pertain to the same technical issue (i.e., both documents present countermeasures for preventing abnormalities from occurring in the management information due to power outages or the like). Such being the case, in the light of the abovementioned disclosures in document 1 it would have been easy for a person skilled in the art to conceive of configuring so that the invention disclosed in document 1 subjects each set of management information from among a plurality of types of management

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information, including defect management information, to consistency verification processes, like in the invention disclosed in document 2. When combining the inventions disclosed in documents 1 and 2, a person skilled in the art could select the well-known PCA counters that are disclosed in document 3 as the plurality of types of management information, as appropriate. In addition, the selection of a well-known write once/read many type disk as the disk in the invention disclosed in document 1 is merely a simple design matter that could have been configured by a person skilled in the art, as appropriate.

The inventions set forth in claims 5, 10 and 14 do not involve an inventive step in the light of documents 1, 2 and 4. Document 1 and document 4 belong to the same technical field (i.e., both documents disclose inventions associated with disk devices) and pertain to the same technical issue (i.e., both documents present countermeasures for preventing abnormalities from occurring in the management information due to power outages or the like). Such being the case, it would have been easy for a person skilled in the art to conceive of configuring so that the fault detection byte and the volume space bitmap in the invention disclosed in document 1 have a single-table data structure, like in the invention disclosed in document 4, or of configuring so that the recovery program in the invention disclosed in document 1 searches the user data area in order to recover a file information table, like in the invention disclosed in document 4.

The inventions set forth in claims 7 and 8 do not involve an inventive step in the light of documents 1, 2

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	<p>and 5. Document 1 and document 5 belong to the same technical field (i.e., both documents disclose inventions associated with disk devices) and pertain to the same technical issue (i.e., both documents present countermeasures for preventing abnormalities from occurring in the management information due to power outages or the like). Such being the case, in the light of the abovementioned disclosures in document 1 it would have been easy for a person skilled in the art to conceive of configuring so that the prescribed sets of data that are manipulated in order to indicate whether a set of data must be subjected to a recovery process (i.e., in order to indicate whether the set of data was updated correctly) in the invention disclosed in document 5 are subjected to consistency verification processes in the invention disclosed in document 1. Furthermore, the inventions set forth in claims 7 and 8 cannot be considered to exhibit a significant effect in comparison to the inventions disclosed in documents 1, 2 and 5 as a result of configuring so that the prescribed data is data that is stored on each layer of the well-known multilayer optical disk disclosed in document 6 when combining the inventions disclosed in documents 1 and 5; therefore, the configuration in question is merely a simple design matter that could have been configured by a person skilled in the art, as appropriate.</p>